

Tour of Disposal and Recycling Facilities in the Area

Eight members of the Solid Waste Management Program Task Force (SWTF) toured seven local disposal and recycling facilities on September 1, 2004. The purpose of the tour was to familiarize SWTF members with various sites that are not routinely open to the public as well as provide opportunities to research issues for the environmental topics that are part of the charter of the task force.

Loudoun Composting

Loudoun Composting is a fully permitted 25-acre site just off Route 50 in Chantilly, VA. A private operation, it is one of the largest such facilities on the east coast. About 20,000 tons of Fairfax County yard waste and leaves are trucked to the site for recycling annually.

At Loudoun Composting, members learned about the issues related to the use of plastic versus paper bags for the collection of grass and leaves. While there was not definitive resolution of the dilemma, the fact is that the use of plastic bags results in about 10% and 25% of the yard waste collected for recycling being disposed in a landfill because it cannot be recycled effectively due to plastic contamination.



Paper bags do compost, but there is the question of whether residents will comply with the use of paper bags since paper ones are more expensive to use.

The alternative of simply using trash cans to collect leaves unbagged was discussed. There are pros and cons to this alternative also such as the weight that collection workers would need to lift and the number of containers some homeowners would require.

The compost that is made from leaves and brush is very high quality. The equipment needed for such an operation is expensive when it is used seasonally for leaves only.

Capitol Fiber

Capitol Fiber is located in Springfield, VA and is owned by the *Washington Post*. The facility has the covered warehouse space to process newsprint and mixed paper, plastic and glass bottles, and aluminum cans.



Capitol Fiber workers hand and machine sort plastic bottles, aluminum and tin cans, glass and other materials. About 25% of the material collected for recycling and delivered to Capitol Fiber must be disposed since it is contaminated or not acceptable for recycling markets. Better public outreach and education are needed to inform residents of what and be recycled and how to recycle materials correctly, so that markets will buy the materials.

Recyclable materials are being sold in the United States and increasingly to markets in China and India.

Newington –County Collection Office

The office was originally designed for Fairfax Connector Buses and was taken over by the county in 1989, to house its residential waste collection operations.

Fairfax County provides residential collection for 42,000+ customers within Sanitary Collection Districts (about 15% of the county households). County collection crews collect from the Mt. Vernon area on Mondays, Route 1 and Franconia Road on Tuesdays, Franconia and Annandale on Wednesdays, Lake Barcroft on Thursdays, and between Route 50 and McLean on Fridays. County sanitary districts are generally east of Route 1 and inside the beltway, however there are some exceptions.

County residential collection crews collect refuse and then return to the same route to collect yard debris on 16 residential routes each day. The county also provides special bulk and brush collections upon request at no additional fee to the customer. These special collections are made using crane and open body trucks. Customers can schedule a special collection by phone or via the website 24/7.

Newington operates 69 vehicles consisting of 25 rear packers, 6 cranes, 12 open bodies, 4 front end 5 roll-off, and service and supervisor vehicles. Service for these vehicles is provided by the Division of Vehicle Services located adjacent to the collection facility on Cinder Bed Road.

The Newington facility also provides commercial service to county buildings throughout the county including the Massey-Court House complex, Police and Fire academies, and District Governmental Centers to name a few.

Newington assists the Health Department, Sheriff's Department and Zoning as needed and participates in disaster clean up as required.

Lorton CDD Landfill

Lorton Landfill, which opened in 1976, acquired new management last year when it was bought by EnviroSolutions, a Virginia company. The landfill accepts waste per its permit from collection companies in the tri-state area. The landfill is lined and has groundwater and surface water monitoring wells and has been in compliance with its state and county permits. The new owners are interested in increasing the recycling of construction demolition debris from the current level of 3% to about 15%. The facility is in the process of changing its scale equipment to allow more queuing room for trucks so they will not backup to Lorton Road.



The facility received 1.5 million cubic yards of CDD in 2003 and recycled about 78,000 cubic yards. The company is already starting to plan for closure of the facility (which could be anywhere from 7 to 15 years) so that the land can be devoted to community use.

I-95 Complex

The I-95 complex is comprised of 500 acres permitted as a landfill. However, municipal solid waste has not been landfilled there since 1995. Parts of the landfill are being closed. Only ash from the Energy/Resource Recovery Facility and the other ashes from the area are landfilled currently. There are 23 groundwater monitoring wells that check for leachate from the landfill. The landfill is in compliance with all state permits.

The complex has an administrative office building, the E/RRF, Citizens' Disposal Facility, Household Hazardous Waste Collection and Michigan Cogeneration buildings. The task

force toured the area where a new cell for the ash landfill was being excavated and lined. The tour also included the Michigan Cogeneration Plant that produces 6 megawatts of electricity from methane gas that is mined from the closed MSW landfill. The electricity is sold to Dominion Virginia Power and is enough power for about 6,000 homes.

Methane gas from the landfill is mined and piped to the Nomen Cole Wastewater Treatment Plant and used as fuel.

The Citizens Disposal Facility accepts waste and recyclables from about 58,000 residents annually.

E/RRF

The I-95 Energy/Resource Recovery Facility (E/RRF) is privately owned and operated by Covanta Fairfax, Inc., a subsidiary of Covanta Energy. The current Service Agreement with Covanta expires in February 2011. The Fairfax County Division of Solid Waste Disposal and Resource Recovery oversees operation of the I-95 E/RRF and is responsible for providing a guaranteed annual tonnage of 930,750 tons of waste to the facility.



The E/RRF occupies 23 acres at the I-95 Landfill. The facility consists of four 750 ton-per-day waterwall furnaces with a capacity to burn 3,000 tons per day of solid waste at a heating value of 5,500 BTUs. The waste burns at temperatures in excess of 1,800 degrees Fahrenheit. The facility processes over one million tons of waste annually. Through this processing, the waste is reduced by 90% in volume and 25% by weight, leaving an ash material that is landfilled. The facility has state of the art pollution control equipment that is continuously monitored for maximum efficiency and environmental protection.

The E/RRF is in compliance with its air, waste and environmental permits.

The E/RRF produces its own power needs and sells excess electricity to Dominion Virginia Power, enough energy to power about 76,000 homes. If the electricity was made using oil, it would take almost 2 million barrels of oil to replace the waste as fuel to generate the electricity.

In FY 2004, the ERRF:

- processed 1,084,712 tons of waste (the equivalent of using about 2 million barrels of fuel oil)
- produced enough electricity to power 76,000 homes
- disposed of 368,585 tons of ash in the I-95 ash monofill
- reduced production of Green House Gases significantly

I-66 Transfer Station

The Transfer Station was built at the site of the closed I-66 Landfill. It operates with a permit issued by the Virginia Department of Environmental Quality #387. The Transfer Station began operation in 1982. Commercial Waste is accepted Monday-Saturday. The Transfer Station accepts waste, yard debris and brush for transfer and/or processing.

An eleven-bay expansion project was completed in March 1997. This brings the total available bays to 21, with 6 waste disposal chutes for loading 18-wheel tractor trailers.

During the fiscal year 2004, the Transfer Station received about 2455 tons of waste daily (6 days average.) Roughly 70% of the county's municipal solid waste passes through the Transfer Station.

The facility operates with 52 transfer vehicles, 74 drivers, and other operations staff. Drivers typically work 10 hours a day, 4 days a week, and are on rotating shifts.

The transfer trucks log over 2 million miles each year--nearly 40,000 loads were hauled last year to final disposal sites such as the E/RRF, Lorton Debris Landfill or downstate landfills.

The Citizens Disposal Facility served over 251,200 residents and commercial companies in FY 2004.

The Transfer Station also leases parking spaces for large trucks to any waste collection company that requests space.